A Descriptive Survey: Job Stress and Coping Strategies of Information Technology Personnel

H.N. Dhanpal*
Smt. Nagarathnamma College of Nursing, Bangalore, India

Abstract

This study is aimed at assessing the job stress and coping strategies of IT personnel. A descriptive survey research design has been used. A sample of 60 IT personnel from an IT company of Bangalore was selected through non-probability, purposive sampling technique. Data were collected via standardized self-report questionnaire and then analyzed using descriptive statistics and inferential statistics. The findings of the study revealed the prevalence of Job Stress among IT personnel, which has been found to be significant. The substantial factors associated with job stress were performance pressure, poor relation with superiors, bureaucratic constrains. Coping strategies more frequently adopted were problem focused, local support and negative distraction. Findings of the study may help in designing stress management programs.

Keywords: Bangalore, coping strategies, IT personnel, job stress

*Corresponding Author E-mail: dhanpal2000@yahoo.com

INTRODUCTION

Stress is a frequent phenomenon that has become a normal part of our daily lives. Change in the nature of work is causing professionals to experience stress at different levels which can be a threat to the health of workers.[1]

Job stress has been described as being in a negative state and experiencing frustration, worry, anxiety and depression that is associated to work related factors.[2] The job stress and the associated frustrations are common in those circumstances where the occupation is extremely time-bound, client-oriented and technology intensive.

Jobs in Information technology is the most demanded one in modern India, and also the most sensible section of the youth are opting for it.[3] Information technology (IT) professionals are among the swiftest growing personnel. According to the data collected by the Bureau of Labor Statistics, approximately 1.6 million new IT professions would be created from 2004 to 2016.[4]

A stress-related study applied to individuals working in computer-related fields' remarked: that "Information processing professionals see transformation in technology as a pre-requisite for their existence, yet the speed of this transformation will have profound psychological and physiological effects". In this survey, out of the 231 candidates employed, a majority of the people agreed with the statement that "Changes in computer technology creates pressure." The study has concluded that "the men and women who plan, design, and monitor these systems have experienced more 'technostress' in their job."[5]

IT jobs are a bit different from our archetypal concept of secured employment: these jobs entail strong competitiveness with globalized life style.[3] IT Jobs are characterized by

extensive working period, less social interaction, working in different time zones, job insecurity, constant upgradation of new technology, time bound projects, work environment, and continuous visual focusing of monitors.[2,6] These characteristics lead to job stress and work exhaustion among IT personnel.[7]

A study related to work stress among Information Systems Professionals in Manitoba reported that the employees experienced the feeling of frustration, pride in accomplishments, being overwhelmed, anxiety along with common stress symptoms, such as, decrease in energy, anxiety, muscle tension, headache, stomach upset, negative thinking and insomnia.[8]

These symptoms of Job stress are not left behind at the workplace at the end of the workday, instead remains with the human being, thus causing an impact on to their broader psychosocial domain.[9]

Job stress is considered to be one of the primary work-related health problem and their ill-effects on the health and wellbeing is on the rise as compared to before.[10]

Ignorance of job stress can prove incapacitating physical and psychological problems with poor and negative coping. Present study examines job stress and coping strategies of Information Technology personnel. The findings of the research may be used to plan and execute different stress management programs to reduce the negative effects of job stress on IT professionals.

METHOD
A descriptive research design with a descriptive survey approach was used to assess the job stress and coping strategies adopted by Information technology professionals. Sixty Information technology professionals were selected from an IT company of Bangalore through non-probability, purposive sampling technique. The data was collected by using standardized Job stress scale (JSS) and Coping check list (CCL). The pooled data was analyzed by using descriptive & inferential statistics.

RESULTS
The substantive summary of statistical findings is delineated in the following sections in accordance with the objectives of the research.

SECTION I
Description of demographic variables of IT personnel

SECTION II
(a) Assessment of job stress of IT personnel
(b) Assessment of coping of IT personnel

SECTION III
(a) Association between demographic variables with job stress
(b) Association between demographic variables with coping

SECTION I: Description of demographic variables of respondents.

As depicted in table 1 below, majority of the respondents 56% (34) fall in the age group of 26-30 years. 76.7 %(46) of the total respondents are males. 65 %(39) of the respondents are married and 58.3% (35) are graduates. 58.3% (35) of the respondents have 1 to 4 years of experience.

International Journal of Nursing Science Practice and Research
Vol. 1: Issue 1
www.journalspub.com

Table 1. Demographic Variables of Respondents

S. No.	Demographic Variables	Category	IT Personnel	
			Frequency	Percentage
1	Age (in Years)	26–30	34	56.7%
		31–35	11	18.3%
		36–40	15	25.0%
2	Gender	Male	46	76.7%
		Female	14	23.3%
3	Marital status	Married	39	65.0%
		Unmarried	21	35.0%
4	Type of Family	Nuclear	44	73.3%
		Joint	16	26.7%
5	Religion	Hindu	46	76.7%
		Christian	10	16.7%
		Muslim	04	06.6%
6	Educational Qualification	Graduation	35	58.3%
		Post Graduation	25	41.7%
7	Experience (Years)	1–4	35	58.3%
		5–8	15	25.0%
		9–12	10	16.7%

SECTION II
(a) Assessment of Job Stress of IT personnel

Table 2. Aspect Wise and Over All Mean Score Percentage of Job Stress of Respondents

S. No.	Domain of Stress	Max Possible Score	Mean	SD	Range	Mean Score %
1.	Poor relationship with superiors	16	12.12	1.57	9–16	75.75
2.	Bureaucratic constraints	12	8.45	1.76	4–12	70.41
3.	Work family conflict	20	11.55	3.42	3–18	57.75
4.	Poor relationship with colleagues	16	10.03	2.34	5–13	62.68
5.	Performance pressure	40	31.35	3.54	23–38	78.37
6.	Poor Job prospects	32	13.78	3.87	5–21	43.06
	Total	136	87.32	8.30	72–104	64.67

The aspect wise mean percentage of job stress score of respondents is ranged between 43.06% and 78.37%. The highest mean percentage of job stress scores (78.37%) has been found in performance pressure followed by Poor relationship with superiors (75.25%) and Bureaucratic constraints (70.41%).

(b) Assessment of coping strategies of respondents

Table 3. Aspect Wise and Over All Mean Score Percentage of Coping of Respondents

S. No.	Domains of Coping	Max Possible Score	Mean	SD	Range	Mean Score %
1.	Problem focused	10	5.37	1.21	3–8	53.07
2.	Positive distraction	14	6.25	1.46	3–9	44.64
3.	Negative distraction	9	4.42	1.12	0–6	49.11
4.	Acceptance	11	5.37	1.19	3–8	48.81
5.	Religions coping	9	4.22	1.11	1–8	46.88
6.	Denial	11	4.68	1.9	2–8	42.54
7.	Local support	6	3.23	1.29	1–5	52.83
	Total	70	33.54	2.26	22–40	47.91

The aspect wise mean percentage coping score of respondent is ranged between 44.91% and 53.07% as shown in table 3 above. The highest mean percentage in coping scores (53.07%) has been found in the domain of "Problem focusing" followed by "Local support" (52.83%) and "Negative distraction domain" (49.11%).

DISCUSSION
The findings of the Job Stress Scale were analyzed to find out the factors causing job stress among IT personnel. Out of six subscales three factors like Performance pressure, Poor relationship with superiors and Bureaucratic constrains were found to be the causative factors for job stress among respondents. With the findings of the present study, it is clear that an IT personnel continues to struggle with unexpected job stress (64.7%).

Performance Pressure
'Performance pressure' was ranked the highest (78.37%) in causing job stress among respondents. The findings of the present study are similar to a study conducted by Conway *et al.* on issues related to human computer interaction. It was found that high work load, high work pressure and inadequate employee training were major causes of job stress among IT personnel. [11]

Poor Relationship With Superiors
From the present study it is evident (75.5%) that IT personnel were experiencing stress due to 'poor relationship with their superiors'. The items analyzed in this category were 'difficulty to maintain relationship with superiors', 'lack of support' and 'contradictory views'. The findings appear consistent with the survey conducted by Katos *et al.*[12] on Job Stress among IT Professionals. They found that poor relationship with superiors was significantly associated with job stress.

Bureaucratic Constrains
Another vital cause of job stress among respondents was bureaucratic constrains (70.41%), such as not being able to make full use of skills and ability of the individual, his lack in authority in carrying out the job duties, not being able to participate in decision making and having to do unnecessary tasks or projects. Lim *et al.* upholds the above findings of present study by saying that risk taking, decision making and organization climate enhances job stress.[13]

Other causes of job stress among respondents were found to be Work family conflict (57.75%), Poor relationship with colleagues (62.68%) and Poor job prospects (43.06%).

Coping Strategies of Respondents
It was found that respondents' coping was inadequate (46.62%) compared to their degree of job stress. The subscale analysis revealed the following coping ways that were used highly by respondents –Problem focused coping, Local support and Negative distraction.

Problem Focused Coping
Problem focused coping was found to be more significant (53.7%) among respondents. This style of coping (active coping) is necessary to adjust better to the working environment. The findings of present study are very well supported by study conducted by Peter ED *et al.* They found that IT professionals who were engaged in a more problem focused style of coping were better adjusted; than those who engaged in a more emotional style of coping.[14]

Local Support
Local support (52.83%) was another style of coping used extensively by respondents. The findings of the present study is consistent with the study findings of Thompson *et al.* who found that an IT

personnel tends to seek social support whenever they experience any job stress.[15] The researches over several decades have consistently validated the importance of local support in buffering the effects of stress. The support from superiors, colleagues and family boosts employee morale.

Negative Distraction
Negative distraction as a coping method was used by respondents (49.11%) such as blaming self, trying to feel better by eating / nibbling, sleeping more than usual to avoid the problem and taking big risks.

Other coping strategies used by respondents were Acceptance (48.81%), Religious coping (46.88%), Positive distraction (44.64%) and Denial (42.54%).

SECTION III
(a) Association between demographic variables and Job stress

Significant association between 'job stress' and demographic variables such as gender and years of experience' was observed. The findings of present study have been found to be similar with the study conducted by Gullivan G. who found significant association between Job stress and gender among IT professionals.[16]

(b) Association between demographic variables and coping

Significant association was found between coping and demographic variables such as age, educational qualification, years of experience and monthly income. Marisa Salovona *et al.* found significant association between coping and age, and years of experience in their investigation on 'Self efficacy and Burnout among IT professionals', which is similarly consistent with present findings.[17]

CONCLUSION
The significant level of job stress was observed among IT personnel and various coping strategies adopted by them to deal with the stress they experience. The findings of the research may be used to design and implement stress management programs to attenuate the negative effects of job stress on IT professionals.

REFERENCES
1. http://www.cdc.gov/niosh/docs/99-101/
2. Kumar Siva, Siddique Mohammed. A study on occupational stress among IT professionals, Chennai, *Int J Enterprise Innov Manag Stud.* 2011; 2(2):119–124p.
3. Bhattacharya S, Basu J. Distress, wellness and organizational role stress among IT professionals: Role of life events and coping resources. *J Indian Acad Appl Psychol*. 2007; 33(2):169–178p.
4. Bureau of Labour Stastistics (BLS), "Occupational Employment Projections to 2016". Monthly Labour Review, November, 2007. Available: http://www.bls.gov/opub/mlr/2007/11/art5full.pdf
5. Culpan O, Khsrowpour M. The impact of management support and education: Easing the causality between change and stress in computing environment. *J Educ Syst*. 1990; 18(1):32–38p.
6. Sethi V, King R.C., *et al.* What causes stress in Information system Professionals? *Commun ACM*. 2004; 47(3):99–102p.
7. Pinto B.A. A study of occupational health problems in Goa. *Intern Memo Govt Gova*. 2003; 18(2):24–28p.
8. Kaluzniacky, E. An assessment of stress factors among information systems professionals in Manitoba. In E. Kaluzniacky (Ed.), Special Interest Group on Computer Personnel Research Annual Conference. *Proceedings of the 1998 ACM SIGCPR Conference on Computer Personnel Research*. ACM Press, New York, USA, 1998.

9. Schwartberg N. S., Dytell R. S. Dual-earner families: the importance of work stress and family stress for psychological well-being. *J Occup Health Psychol*. 1996; 1(2):211–223p.

10. Kikangas A. M., Kinnunen U. Psychosocial work stressors and well-being: self-esteem and optimism as moderators in a one-year longitudinal sample. *Pers Individ Dif*. 2003; 35:537–557p.

11. Conway F T, Smith M J. Occupational stress in human computer interaction. *Ind Health*. 1999; 37(2):157–73p.

12. Katos. Job stress among Japan overseas cooperation volunteers. *Songyo Eiseigaku Zasshi*. 2004; 46 (6):191–200p.

13. Lim, Viven KG. Occupational stress among information system professionals in Singapore. *Electr J: Asian Pac Newslett*. 1999; 8(5):172–76p.

14. Peter ED. Love, Irani Z. Coping and psychological adjustment among information technology personnel. *Indus Manag Data Syst*. 2007; 107(66):824–844p.

15. Thompson SH. Gender differences in occupation stress and coping strategies among IT Professionals. *Women Manag Rev*. 1996; 11(1):20–28p.

16. Gallivan M. Examining gender differences in IT professional's perception of job stress in response to technological change. *J Electr Media*. 2003; 16(2):181-92p.

17. Salvona M, Peivo J. Self-efficacy specificity and burnout among information technology workers: An extension of the job-demand control model. *Eur J Work Org Psychol*. 2002; 11(1), 1–25p.